

SUCCESSFUL ENTREPRENEUR: A DISCRIMINANT ANALYSIS

M. B. M. Ismail

Department of Management, Faculty of Management and Commerce,
South Eastern University of Sri Lanka, Oluvil.
mbmismail@seu.ac.lk

ABSTRACT

Since an entrepreneur is a vital person in business World characteristics for entrepreneurs have to developed for the success of the entrepreneurship. This study tries to identify predictors that differentiate between unsuccessful and successful entrepreneur groups and to know the impact of these predictors on the selection of entrepreneur. This study collected data from 145 entrepreneurs in ADL. They were asked about the characteristics for selecting an entrepreneur. This study adopted a non-probability sampling technique i.e. Convenience sampling. Results of this study reveal that values of Wilky's λ for all predictors in the discriminant function vary between 0.468 to 0.970. Specially speaking, age, product or market experience, venture or work experience, risk- taking period, and investment motive period of the discriminant function plays an important role in determining the entrepreneur than innovative mind period. Thus, these predictors significantly differentiate between two groups such as unsuccessful and successful entrepreneur groups. These indicators explain around 73% of the variance in the selection of entrepreneur. Based on the results of the study, a standardized canonical discriminant function has also been developed.

Keywords: Discriminant Analysis, Success Entrepreneur.

INTRODUCTION

Entrepreneurship has been a crucial focus of study in today's environment. Field of entrepreneurship has important focuses in the fields of management, economics, and psychology. On this basis, since an entrepreneur is a vital person in business World characteristics for entrepreneurs have to developed for the success of the entrepreneurships. There are studies that have found characteristics and determinants of entrepreneurs. Likewise, prominent academic scholars have also done studies on the determinants of entrepreneurs. Barkham (1994) studied about entrepreneurial characteristics and the size of the new firm using a model and an econometric test. Boeker (1988) analysed about organizational origins which is an entrepreneurial and environmental imprinting of the time of founding. Cromie & Johns (1983) studied about Irish entrepreneurs with respect to some personal characteristics. Gürol & Atsan (2006) studied about entrepreneurial characteristics amongst university students that is related to some insights for entrepreneurship education and training in Turkey. Herron & Richard (1993) studied about a structural model of the effects of entrepreneurial characteristics on venture performance. Ismail (2012) studied about demographic profile of micro, small and medium entrepreneurs in South Eastern Region using 121 entrepreneurs and found that age, gender, family size, income, occupation and education as determinants for an entrepreneur. These studies, academicians and theories state about different characteristics for entrepreneurs. Similarly, there are theories on accelerating development of entrepreneurship. Any businessman can be an entrepreneur. But, to become a successful entrepreneur is the toughest task of an entrepreneur. Therefore, identifying the characteristics of a successful entrepreneur is a vital aspect. Thus, this study focuses on the determination of characteristics of a successful entrepreneur. Empirical evidences stated in the statement of the problem assist to derive the following research questions which are, in turn, translated into research objectives. Research questions are "what

predictors differentiate between unsuccessful and successful entrepreneur groups? and what is the impact of these predictors on the selection of entrepreneur?”. Research objectives are to identify predictors that differentiate between unsuccessful and successful entrepreneur groups and to know the impact of these predictors on the selection of entrepreneur.

METHODOLOGY

Population and sample

Population refers to all entrepreneurs who undertake entrepreneurship in Ampara District of Sri Lanka (ADSL). This study collected data from 145 entrepreneurs in ADSL. They were asked about the characteristics for selecting an entrepreneur. A simple questionnaire was designed and issued to collect the data using Final Year Undergraduates from Faculty of Management and Commerce, South Eastern University of Sri Lanka. Data were collected during the third quarter of the 2015. Response rate was 77% of the issued questionnaire.

Sampling technique

Researcher tried to collect the population size of entrepreneurs in ADSL. But, it was impossible due to time constraint and accuracy of data. Thus, this study adopted a non-probability sampling technique i.e. convenience sampling.

Analytical techniques

Previous studies followed different analytical techniques such as correlation and regression. But, this study used a discriminant analysis as a new technique for selecting successful entrepreneur. Descriptive statistics such as mean, standard deviation and coefficient of variation were used in this study. Wilky's Lambda and discriminant functional analysis were also carried out in this study. SPSS with the version of 22.0 was used in this study.

RESULTS AND DISCUSSION OF FINDINGS

Descriptive statistics

This is a two-group discriminant analysis. From the group statistics, it is understood that two groups such as successful entrepreneurs and unsuccessful entrepreneurs are separated in terms of entrepreneurial characteristics such as age, product or market experience, venture or work experience, risk-taking period, investment motive period and innovative mind period. All these variables have lower standard deviations of all.

Discriminant statistics

Structure matrix shows the correlation between individual predictors with the discriminant function. Structure matrix has an optimal function. This function orders innovative mind period, investment motive period, product or market experience, risk-taking period, age and venture or work experience.

Group centroids are the mean values for the discriminant scores for a particular group. In this study, there are two groups successful entrepreneur and unsuccessful entrepreneur. There are two group centroids. Group centroid for the first group in the function is positive. This is because standard deviations for innovative mind period, investment motive period, product or market experience, risk-taking period, age and venture or work experience has smaller variation than those of second group.

Pooled within - group correlation matrices shows the correlation between predictors such as innovative mind period, investment motive period, product or market experience, risk-taking period, age and venture or work experience. Correlation between predictors is enough. Thus, there is no multi-collinearity problem.

Tests of Equality of Group Means incorporate Wilky's λ and F statistics. Wilky's λ for each predictor is the ratio of the within- group sums of squares (SS residual/SS error) to the total sums of squares (SSTotal). Thus, its value can vary between 0 to 1. The more closer to the zero there may be difference between two groups. In this study, values of Wilky's λ for all predictors in the discriminant function vary between 0.468 to 0.970. Specially speaking, age, product or market experience, venture or work experience, risk- taking period, and investment motive period of the discriminant function plays an important role in determining the entrepreneur than innovative mind period. Univariate F statistics for age, product or market experience, venture or work experience, risk- taking period, investment motive period and innovative mind period of the discriminant function are 8.945, 10.201, 4.420, 10.133, 13.842 and 162.425 respectively. df1 is the degree of freedom for numerator. This is C – 1 that equals 1 (2 - 1) for all predictors. df2 is the degrees of freedom for denominator. This is n – k -1 that equals 143 for all predictors. p (sig.) values for all predictors of the discriminant function are less than 0.05. Thus, these predictors significantly differentiate between two groups such as unsuccessful and successful entrepreneur groups.

Canonical Discriminant Function shows the eigenvalues. Since there are two groups like successful and unsuccessful entrepreneurs one discriminant function is estimated. The eigenvalue of this discriminant function is 2.689. This function explains 100 percent of the explained variance. The highest Eigen value is the better. Canonical correlations associated with these discriminant functions are 0.854. The square of this correlations equals 0.729316 which indicates around 73% of the variance in the dependent variable (selection of entrepreneur) is explained by this model that consists of age, product or market experience, venture or work experience, risk- taking period, investment motive period and innovative mind period of this function. Thus, there is a research gap for finding the remaining 27% of the variance in the selection of entrepreneur that may be accounted by one or more unknown predictors.

Wilks' Lambda is used to test the null hypothesis that means of discriminant function in all groups are different. Value of Wilks' Lambda is 0.271 for this discriminant function which is estimated on the basis of the Chi- square transformation and degrees of freedom. In this study, Wilks' Lambda is significant with the Sig. value of 0.000. p value (Sig. value) is less than significance level (5%). Thus, researcher rejects null and accept alternative hypothesis. Accepting alternative hypothesis refers to means that discriminant function in all groups is different. Successful and unsuccessful entrepreneur groups differ in terms of age, product or market experience, venture or work experience, risk- taking period, investment motive period and innovative mind period of the discriminant function. Based on the results of the study, standardized canonical discriminant function has been formulated using standardized canonical discriminant function coefficient that is shown in equation (01).

$D = -0.2.001 \text{ Age} + 1.462 \text{ Product or market experience} + (-1.425) \text{ Venture or work experience} + 0.374 \text{ Risk-taking period} + 0.408 \text{ Investment motive period} + 1.664 \text{ Innovative mind period} \dots\dots\dots \text{Formulae (01)}$

CONCLUSIONS

From the group statistics, it is understood that two groups such as successful entrepreneurs and unsuccessful entrepreneurs are separated in terms of entrepreneurial characteristics such as age, product or market experience, venture or work experience, risk-taking period, investment motive period and innovative mind period. However, function in structure matrix orders innovative mind period, investment motive period, product or market experience, risk-taking period, age and venture or work experience. In this study, values of Wilky's λ for all predictors in the discriminant function vary between 0.468 to 0.970. Specially speaking, age, product or market

experience, venture or work experience, risk- taking period, and investment motive period of the discriminant function plays an important role in determining the entrepreneur than innovative mind period. Univariate F statistics for age, product or market experience, venture or work experience, risk- taking period, investment motive period and innovative mind period of the discriminant function are 8.945, 10.201, 4.420, 10.133, 13.842 and 162.425 respectively. p (sig.) values for all predictors of the discriminant function are less than 0.05. Thus, these predictors significantly differentiate between two groups such as unsuccessful and successful entrepreneur groups. The eigenvalue of this discriminant function is 2.689. The highest eigenvalue is the more better. Canonical correlations associated with these discriminant functions are 0.854. The square of this correlations equals 0.729316 which indicates around 73% of the variance in the dependent variable (selection of entrepreneur) is explained by this model that consists of age, product or market experience, venture or work experience, risk- taking period, investment motive period and innovative mind period of this function. Thus, there is a research gap for finding the remaining 27% of the variance in the selection of entrepreneur that may be accounted by one or more unknown predictors. In this study, Wilks' Lambda is significant with the Sig. value of 0.000. p value (Sig. value) is less than significance level (5%). Thus, researcher rejects null and accept alternative hypothesis. Accepting alternative hypothesis refers to means that discriminant function in all groups is different. Successful and unsuccessful entrepreneur groups differ in terms of age, product or market experience, venture or work experience, risk- taking period, investment motive period and innovative mind period of the discriminant function.

REFERENCES

- Barkham, R. J. (1994) Entrepreneurial characteristics and the size of the new firm: A model and an econometric test. *Small Business Economics*. 6(2). pp.117-125.
- Boeker, W. (1988) Organizational Origins: Entrepreneurial and Environmental Imprinting of the Time of Founding. *Ecological Models of Organizations*. 1(2). pp.33-51.
- Cromie, S. & Johns, S. (1983) Irish entrepreneurs: Some personal characteristics. *Journal of Occupational Behaviour*. 4(4). pp.317-324.
- Gürol, Y. & Atsan, N. (2006) Entrepreneurial characteristics amongst university students: Some insights for entrepreneurship education and training in Turkey. *Education and Training*. 48(1). pp.25-38.
- Herron, L. & Richard, B. R. (1993) A structural model of the effects of entrepreneurial characteristics on venture performance. *Journal of Business Venturing*. 8(3). pp. 281-294.
- Ismail, M. B. M. & Velnampy, T. (2014) Ranking entrepreneurial characteristics in South Eastern Region of Sri Lanka. *SMART Journal of Business Management Studies*. 10(1). pp.1-8.
- Ismail, M. B. M. (2012) Contribution of entrepreneurship towards social development on a special focus on Micro and Small Entrepreneurs. *Paper presented in Emerging Entrepreneurial & Economic Environment (NCEEEE-2012): Proceedings of the National Conference, Alagappa University, India*. p.22.
- Ismail, M. B. M. & Gunapalan, S. (2012). Identification of Micro, Small and Medium Entrepreneurial Marketers in South Eastern Region. *Paper presented in Innovative Marketing- Trends, Issues and Challenges organized: Proceedings of National Conference, SRM University, India*. pp. 114-6.
- Ismail, M. B. M. (2012) Demographic Profile of Micro, Small and Medium Entrepreneurs in South Eastern Region -SER- of Sri Lanka. *Paper presented in Management Conference: Proceedings of International Research Conference, University of Jaffna, Sri Lanka*, p.40.
- Koh, H. C. (1996) Testing hypotheses of entrepreneurial characteristics: A study of Hong Kong MBA students. *Journal of Managerial Psychology*. 11(3). pp.12-25.
- Nair K. R. G. & Pandey, A. (2006) Characteristics of Entrepreneurs. *The Journal of Entrepreneurship*. 15(1). pp.47-61.
- Roper, S. (1998) Entrepreneurial Characteristics, Strategic Choice and Small Business Performance. *Small Business Economics*. 11(1). pp.11-24.